

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Wireless E911 Location Accuracy Requirements)	PS Docket No. 07-114
)	
_____)	

**SECOND SUPPLEMENT AND AMENDMENT TO
REQUEST FOR WAIVER OF SECTION 20.18(h)(1)(i)(A)**

Missouri RSA 5 Partnership d/b/a Chariton Valley Wireless Services (“Chariton Valley”), by its attorneys, hereby further supplements its pending Request for Waiver of Section 20.18(h)(1)(i)(A) filed January 17, 2012 (“Request”) to provide the Federal Communications Commission (“FCC” or “Commission”) with an update regarding the deployment of Chariton Valley’s Code Division Multiple Access (“CDMA”) and Long Term Evolution (“LTE”) networks and the transition of Chariton Valley’s customers from its Global System for Mobile Communications (“GSM”) network to its CDMA network. The Request seeks a waiver of the requirement that licensees utilizing network-based location technologies meet the first applicable Enhanced 911 (“E911”) location accuracy benchmark by January 18, 2012. To the extent necessary, and out of an abundance of caution, Chariton Valley also requested, for purposes of E911 location accuracy, the ability to rely either on (1) a blending of network and handset-based data or (2) handset-based accuracy data, exclusively, in any county or PSAP service area if at least 85 percent of Chariton Valley’s subscribers, network-wide, use CDMA/LTE handsets, or if Chariton offers CDMA handsets to subscribers in that county or PSAP service area at no cost to the subscriber.¹

¹ In the Request, to the extent necessary, Chariton Valley requested a waiver of sections 20.18(h)(1)(iv) and (h)(1)(v) to allow Chariton Valley to utilize blending of network and

On August 24, 2012, Chariton Valley submitted a Supplement to the Request in which it also provided an update regarding its CDMA and LTE deployments and among other things noted that “by transitioning to CDMA, Chariton Valley anticipates that it will be able to meet or exceed future E911 location accuracy benchmarks through a blending of handset and network-based data, or exclusively through handset-based data.”² Chariton Valley also anticipated that its CDMA network, which utilizes a handset-based solution, would meet the January 18, 2013 handset accuracy requirements.

Chariton Valley hereby further supplements the Request and, to the extent necessary, requests a waiver of the requirements of Rule Sections 20.18(h)(1)(i)(B) and (h)(1)(ii)(A).

I. Supplement

Chariton Valley hereby provides the following supplemental information.

CDMA and LTE Deployments

Chariton Valley launched commercial CDMA service on July 16, 2012. A “soft launch” of Chariton Valley’s 4G LTE network occurred in September 2012. Chariton Valley officially launched its 4G LTE network for customers in November 2012.

Customer Transition

Since the launch of Chariton Valley’s CDMA network, Chariton Valley has diligently worked to transition its GSM customers to CDMA and LTE. **[BEGIN CONFIDENTIAL INFORMATION]**

handset-based data or exclusively handset-based data upon 85% CDMA/LTE handset penetration. Request at p. 7.

² Missouri RSA 5 Partnership d/b/a Chariton Valley Wireless Services Supplement to Request for Waiver of Section 20.18(h)(1)(i)(A) at p. 2 (filed Aug. 24, 2012) (“Supplement”).

[END CONFIDENTIAL

INFORMATION] Chariton Valley's GSM network, however, continues to support mobile wireless services in rural Missouri, and complete turn-down of the Chariton Valley GSM network would result in the loss or significant reduction of service – including 911 service – to GSM subscribers in Chariton Valley's rural service area. Chariton Valley also recognizes that a small number of GSM subscribers may resist switching. Accordingly, it is not in the public interest for Chariton Valley to completely decommission its GSM network at this time.

Community Expectations

Chariton Valley's efforts remain consistent with community expectations. The PSAPs continue to support Chariton Valley's efforts to transition to a handset-based E911 solution.³ In addition, T-Mobile, another GSM carrier in the area, continues to exclude Chariton, Macon and Randolph counties from the network-based accuracy standards due to the inability to triangulate

³ See, e.g., Attachments 1, 2 and 3. Chariton Valley will provide additional supporting materials upon receipt.

in those counties.⁴ Linn County, Missouri remains Phase 0 and has not requested Phase I or Phase II data.

Compliance with Location Accuracy Benchmarks

As anticipated in the Request and the Supplement, Chariton Valley's CDMA network independently meets the applicable January 18, 2013 benchmarks for handset-based technologies.⁵ Also as anticipated, by transitioning to CDMA/LTE and relying solely on handset-based accuracy data, or utilizing a blending of handset and network-based accuracy data, Chariton Valley: (1) now meets or exceeds the applicable January 18, 2012 E911 network-based location accuracy benchmark, and (2) meets or exceeds the applicable January 18, 2014 E911 network-based location accuracy benchmarks.

Reliance of Handset-based Accuracy Data

First and foremost, Chariton Valley meets applicable location standards by relying solely on handset accuracy data. Rule 20.18(h)(1)(v) provides:

A carrier may rely solely on handset-based accuracy data in any county or PSAP service area if at least 85 percent of its subscribers, network-wide, use A-GPS handsets, or if it offers A-GPS handsets to subscribers in that county or PSAP service area at no cost to the subscriber.⁶

As explained above, almost **[BEGIN CONFIDENTIAL INFORMATION]**

[END CONFIDENTIAL

INFORMATION] Accordingly, Chariton Valley may rely on handset-based accuracy data pursuant to Rule 20.18(h)(1)(v).

⁴ See Letter from Kristine Laudadio Devine, Counsel for T-Mobile USA Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, T-Mobile USA E911 County Exclusion List, Dec. 15, 2013 Exhibit, at p. 4 (filed Dec. 18, 2013).

⁵ See 47 C.F.R. § 20.18(h)(2)(i) (50 meters for 67% of calls, and 150 meters for 80% of calls).

⁶ 47 C.F.R. § 20.18(h)(1)(v).

The rules are not completely clear whether a carrier relying solely on handset-based data pursuant to subsection (h)(1)(v) of Rule 20.18 must meet the network-based standards or the handset-based standards. It is Chariton Valley's understanding, however, that such a carrier must meet the applicable handset-based standards.⁷ Indeed, this is consistent with the Commission's adoption of the handset-based standard as the unitary standard after the eight-year implementation period⁸ and also with the original NENA, APCO, and AT&T August 25, 2008 proposal.⁹

Regardless, relying solely on handset-based data, Chariton Valley meets both the applicable handset-based and network-based standards. Confidential Attachment 4 reports the percentage of calls in which Chariton Valley is able to locate callers within 50 meters on Chariton Valley's CDMA network based on testing with the PSAPs. As reflected in Attachment 4, this 50-meter handset data alone demonstrates that Chariton Valley meets the currently applicable handset-based accuracy and network-based accuracy requirements.

Chariton Valley recognizes that the text of subsections (h)(1)(i)(A) & (B) and (h)(1)(ii)(A) of Rule 20.18 does not expressly provide for reliance solely on handset-based accuracy data for the 2012 and 2014 benchmarks. The express ability to satisfy the network-based accuracy benchmarks solely through handset-based accuracy data applies as of the third network-based accuracy benchmark in 2016 and thereafter.¹⁰ Chariton Valley does not believe, however, that this limitation was an affirmative determination to restrict carriers from utilizing

⁷ See 47 C.F.R. § 20.18(h)(2).

⁸ *Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission's Rules, Wireless E911 Location Accuracy Requirements, E911 Requirements for IP-Enabled Service Providers*, GN Docket No. 11-117, PS Docket No. 07-114. WC Docket No. 05-196, Notice of Proposed Rulemaking, Third Report and Order, and Second Further Notice of Proposed Rulemaking, 26 FCC Rcd 10074, ¶ 19 (2011).

⁹ See Letter from Brian Fontes, CEO, NENA, Robert M. Gurss, Director, Legal & Gov't Affairs, APCO, and Robert W. Quinn, Jr., SVP – Federal Regulatory, AT&T at p. 3 (filed Aug. 25, 2008) ("APCO/NENA/AT&T Ex Parte") ("solely handset-based accuracy data (at handset-based accuracy standards)").

¹⁰ See 47 C.F.R. § 20.18(h)(1)(i)(C)(3)(100m for 67% calls in 100% of counties).

handset-based accuracy data in connection with earlier benchmarks. Rather, this limitation arose because commenters in the rulemaking and the Commission itself did not anticipate that A-GPS handsets would have sufficiently replaced non-A-GPS handsets before this time and the 85% penetration level was lofty level to attain.

Chariton Valley continues to request a waiver of the applicable rules, to the extent necessary, in order to rely solely on handset-based location accuracy data.¹¹ Chariton Valley currently **[BEGIN CONFIDENTIAL INFORMATION]**

[END CONFIDENTIAL INFORMATION]

Accordingly, there is good cause to waive the rules to the extent necessary to allow Chariton Valley to rely solely on handset-based accuracy data. The underlying purpose of the rules, *i.e.*, encouraging the timely migration to A-GPS handsets, would be frustrated by strict application in this case. Strict application also would be inequitable, unduly burdensome, and contrary to the public interest given Chariton Valley's huge effort to transition its subscribers to its CDMA/LTE networks.

Blending Handset and Network-based Data

¹¹ See Request at p. 7.

Although Chariton Valley now principally seeks to rely solely on handset-based accuracy data, Chariton Valley also believes that it substantially complies with the applicable requirements through blending of handset and network-based data. Rule 20.18(h)(1)(iv) allows carriers to meet the network-based location benchmarks through a blending of handset and network-based data “based on weighting accuracy data in the ratio of assisted GPS (“A-GPS”) handsets to non-A-GPS handsets *in the carrier’s subscriber base*.”¹² Neither the rules nor the *Location Accuracy Second Report and Order*,¹³ however, specify the exact blending methodology to be used.

Based on the relative percentages of A-GPS handsets and non-A-GPS handsets, Chariton Valley could, for example, assume for purposes of E911 accuracy that **[BEGIN**
CONFIDENTIAL INFORMATION]

[END CONFIDENTIAL
INFORMATION] Based on this blending analysis, Chariton Valley would comply with the 100m/67% standard even if no calls placed on non-A-GPS handsets could be located within the required distance.

Confidential Attachment 5 shows the percentage of calls on which Chariton Valley is able to locate callers within 50 meters on Chariton Valley’s CDMA network. Factoring in the A-GPS handset percentage, column F reflects the percentage of calls across Chariton Valley’s total subscriber base that can be located within 50 meters. Since 50 meter-accuracy is significantly more accurate than the required 100-meter handset-based benchmark, column F demonstrates that Chariton Valley meets the network-based location accuracy standard when “blending” the A-GPS and non-A-GPS handsets across Chariton Valley’s total subscriber base under this simple methodology.

¹² 47 C.F.R. § 20.18(h)(1)(iv)(emphasis added).

¹³ *Wireless E911 Location Accuracy Requirements*, PS Docket 07-114, Second Report and Order, 25 FCC Rcd 18909 (2010).

Chariton Valley recognizes, however, that this may not be the approach envisioned by the Commission. Indeed, upon further research and inquiry, Chariton Valley has a different understanding of the blending methodology apparently contemplated by the Commission than Chariton's previous understanding. In order to definitively determine compliance through blending as apparently contemplated in the NENA/APCO/AT&T Ex Parte,¹⁴ Chariton Valley would need to do additional testing. Specifically, Chariton Valley has data to measure compliance with the various location accuracy benchmarks, but does not have data that conclusively determines the *average accuracy* of handset-based and network-based solutions network-wide. Accordingly, Chariton Valley would have to conduct additional tests to definitively determine average accuracy network-wide.¹⁵

Chariton Valley does not believe that such additional testing is warranted at this time, however, given (1) the extremely high ratio of A-GPS to non-A-GPS handsets in Chariton Valley's subscriber base; (2) the more efficient devotion of resources to the customer transition; (3) the acknowledged shortcomings of the location accuracy of Chariton Valley's network-based solution; and (4) the other relief requested in the Request as supplemented and amended herein. Chariton Valley notes, for example, that because of the extremely high ratio of A-GPS to non-A-GPS handsets in its subscriber base, Chariton Valley meets the applicable 300 meter for 90% of calls network-based location accuracy standard of subsection (h)(1)(ii)(A) of Rule 20.18 as long as its network-based solution has an average accuracy of **[BEGIN CONFIDENTIAL INFORMATION]**

¹⁴ See APCO/NENA/AT&T Ex Parte. The APCO/NENA/AT&T Ex Parte provides an example of blending which combines the *average* location accuracy of network and handset-based solutions.

¹⁵ Chariton Valley does not concede that this "blended average" accuracy methodology is the only approach allowed, or that that the Commission's rules or orders require it.

[END CONFIDENTIAL

INFORMATION] and that it therefore complies with the 300m/90% benchmark through accuracy “average blending.” Chariton Valley would, however, have to conduct additional testing to determine the exact average accuracy of each solution. Chariton Valley will conduct such testing if directed by the Commission.

II. Request for Waiver of Rule Sections 20.18(h)(1)(i)(B) And 20.18(h)(1)(ii)(A)

As discussed above, Chariton Valley complies with the location accuracy benchmarks based solely on handset-based accuracy data, and believes that it complies with the benchmarks based on blending handset-based and network-based accuracy data. Out of an abundance of caution, however, Chariton Valley hereby amends its Request to seek, to the extent necessary, a waiver of the requirements of Rule Sections 20.18(h)(1)(i)(B) and (h)(1)(ii)(A) pursuant to Sections 1.3 and 1.925(b)(3) of the Rules.¹⁶ Chariton Valley seeks either an outright waiver of these requirements, or consistent with the discussion above, seeks a waiver of these requirements to the extent necessary to rely solely on handset-based location accuracy data pursuant to Rule 20.18(h)(1)(v).

For the reasons set forth herein and in the Request, grant of the waiver would be in the public interest because it would continue to facilitate Chariton Valley’s transition of its customers to CDMA/LTE while preserving the provision of GSM service in rural areas. Denial of the requested relief would be inequitable, unduly burdensome and contrary to the public interest because it would penalize Chariton Valley and its customers for Chariton Valley’s migration to CDMA/LTE.

¹⁶ 47 C.F.R. §§ 1.3, 1.925(b)(3).

As proposed in the Request, Chariton Valley has deployed CDMA and LTE networks, bringing mobile broadband services to rural Missouri. Chariton Valley aggressively has transitioned its customers to a superior, handset-based E911 location solution, which meets the Commission's handset-based location accuracy requirements. Chariton Valley has achieved a level of A-GPS handset penetration **[BEGIN CONFIDENTIAL INFORMATION]**

[END

CONFIDENTIAL INFORMATION] Granting Chariton Valley the requested relief to continue the transition will serve the public interest.

Despite Chariton Valley's diligent efforts, some subscribers continue to utilize the GSM network and likely will continue to do so. It would not be in the public interest to shutdown Chariton Valley's GSM network at this time. As explained in the Request, however, absent requested relief, Chariton Valley could be forced to shut down rural GSM sites where E911 location accuracy fails to meet the FCC requirements, and ultimately Chariton Valley would be forced to cease providing GSM entirely. This would result in a loss of service – including 911 service – in certain rural areas in which there would be no GSM service at all. This would be inequitable and unduly burdensome to Chariton Valley and its customers and contrary to the public interest.

REDACTED FOR PUBLIC INSPECTION

As further supported by the supplementary information provided herein, and to the extent amended hereby, Chariton Valley requests that the Commission grant the Request and waive the requirements of Section 20.18(h)(1) of the rules to the extent requested.

Respectfully submitted,

Missouri RSA 5 Partnership
d/b/a Chariton Valley Wireless Services

By: _____

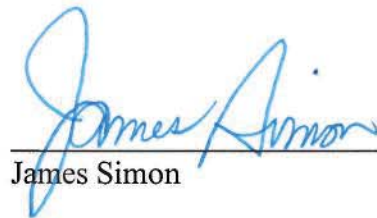
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May 22, 2014

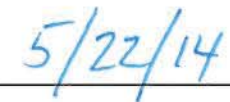
DECLARATION OF JAMES SIMON

I, James Simon, do hereby declare under penalty of perjury the following:

1. I am the General Manager of Missouri RSA 5 Partnership d/b/a/ Chariton Valley Wireless Services.
2. I have read the foregoing "Second Supplement and Amendment to Request for Waiver of Section 20.18(h)(1)(i)(A)", and the accompanying Request for Confidential Treatment. I have personal knowledge of the facts set forth therein, and I believe them to be true and correct.



James Simon



Date



MACON COUNTY ENHANCED 9-1-1
1205 N. MISSOURI ST.
MACON, MO. 63552
660-385-1911

May 16, 2014

Mr. Jim Simon
Chariton Valley Wireless
1206 North Missouri
Macon, MO 63552

RE: Chariton Valley Transition to Handset-based E911 Solution

Dear Mr. Simon,

This letter expresses our continued support for the efforts of Chariton Valley Wireless ("Chariton Valley") to transition its subscribers from its legacy Global System for Mobile Communications ("GSM") network to its Code Division Multiple Access ("CDMA") and Long Term Evolution ("LTE") networks. It is our understanding that Chariton Valley has launched its CDMA and LTE networks, which utilize a handset-based Enhanced 911 ("E911") location accuracy solution. Chariton Valley has informed us that it has transitioned _____ of its wireless subscribers from its GSM network to its CDMA/LTE networks. Chariton Valley also has informed us that it is continuing to transition its remaining GSM customers over to its CDMA/LTE networks, but that additional time is required in order to transition all of Chariton Valley's customers. In addition, Chariton Valley has informed us that, at this point, the complete decommissioning of its legacy GSM network would result in a loss of service – including the loss of 911 service – to GSM subscribers in certain rural areas.

Based on our understanding as set-forth above, we continue to support Chariton Valley's efforts to transition its customers to its CDMA/LTE networks, and look forward to working with Chariton Valley in the future.

Sincerely,

Michael Kindel, Director
Macon County Enhanced 911

City of

Moberly!

Police Department
Russell W. Tarr
Chief of Police
223rd Session FBI Academy

300 N. Clark Street
Moberly, MO 65270
Phone: 660-263-0346
Fax: 660-263-8540

May 19, 2014

Mr. Jim Simon
Chariton Valley Wireless
1206 North Missouri
Macon, MO 63552

RE: Chariton Valley Transition to Handset-based E911 Solution

Dear Jim:

This letter expresses our continued support for the efforts of Chariton Valley Wireless ("Chariton Valley") to transition its subscribers from its legacy Global System for Mobile Communications ("GSM") network to its Code Division Multiple Access ("CDMA") and Long Term Evolution ("LTE") networks. It is our understanding that Chariton Valley has launched its CDMA and LTE networks, which utilize a handset-based Enhanced 911 ("E911") location accuracy solution. Chariton Valley has informed us that it has transitioned _____ of its wireless subscribers from its GSM network to its CDMA/LTE networks. Chariton Valley also has informed us that it is continuing to transition its remaining GSM customers over to its CDMA/LTE networks, but that additional time is required in order to transition all of Chariton Valley's customers. In addition, Chariton Valley has informed us that, at this point, the complete decommissioning of its legacy GSM network would result in a loss of service – including the loss of 911 service – to GSM subscribers in certain rural areas.

Based on our understanding as set-forth above, we continue to support Chariton Valley's efforts to transition its customers to its CDMA/LTE networks, and look forward to working with Chariton Valley in the future.

Sincerely,

Russell Tarr
Chief of Police

Subject: RE: GSm to CDMA Conversion

Date: Wednesday, May 21, 2014 7:37:28 AM Eastern Daylight Time

From: Les Dotson

To: Vicky Nanneman

Yes Vicky, I signed and sent the letter out last week. Of course you can always count on my support ;-)
Have a great day.

Chris Brown

Director

660-288-3460

660-676-1811



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From: Vicky Nanneman [mailto:VNanneman@charitonvalley.com]

Sent: Tuesday, May 20, 2014 4:42 PM

To: chariton@centurytel.net

Cc: Ryan Johnson; JSimon@charitonvalley.com

Subject: RE: GSm to CDMA Conversion

Les:

Following up on my request below to see if you had any questions and if Chariton Valley could expect your continued support in our GSM to CDMA conversions?

Thanks,

Vicky

From: Vicky Nanneman

Sent: Thursday, May 15, 2014 3:14 PM

To: Chariton County E911 (chariton@centurytel.net)

Cc: Ryan Johnson; Jim Simon (JSimon@charitonvalley.com)

Subject: GSm to CDMA Conversion

Les:

The FCC has requested confirmation that Chariton County continues to support the conversion of our customers from GSM to CDMA for a handset based 911 solution for Chariton Valley customers. Our attorney has drafted the attached letter for your use.

Attachment 3

Please let me know if you have any questions.

Thank you for your continued support.

Vicky Nanneman

Project Manager

Chariton Valley

vnanneman@charitonvalley.com

(o) 660-395-9633

(c) 660-414-5109

1213 E Briggs Dr

P O Box 67

Macon, MO 63552

Attachment 4

Attachment 5